Renovation Strategies of Selected EU Countries

A status report on compliance with Article 4 of the Energy Efficiency Directive

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Article 4, Energy Efficiency Directive

Member States shall establish a long-term strategy for mobilising investment in the renovation of the national stock of residential and commercial buildings, both public and private. This strategy shall encompass:

• An overview of the national building stock based, as appropriate, on statistical sampling;
• Identification of cost-effective approaches to renovations relevant to the building type and climatic zone;
• Policies and measures to stimulate cost-effective deep renovations of buildings, including staged deep renovations;
• A forward-looking perspective to guide investment decisions of individuals, the construction industry and financial institutions;
• An evidence-based estimate of expected energy savings and wider benefits.

A first version of the strategy shall be published by 30 April 2014 and updated every three years thereafter.
Available Guidance
No strategy submitted
The ten examined strategies
Countries not examined
Brussels Capital Region
Analysing the strategies

Analysis based on the 5 headings specified in Art. 4 as required in national strategy:

1. Overview of National Building Stock
2. Cost Effective Approaches to Renovation
3. Policies & Measures to Stimulate Deep Renovation
4. Forward-looking Perspective to Guide Investment Decisions
5. Energy Savings and Wider Benefits
Scoring of the criteria

For each 5 headings (criteria), each strategy is ranked on a 0-5 scale:

- **0 = MISSING** - the item is not covered at all, or only described in another source
- **1 = UNSATISFACTORY** – only the most cursory coverage of the item
- **2 = INADEQUATE** – item addressed poorly, with insufficient detail, or with important aspects missing
- **3 = ADEQUATE** – meets the basic minimum requirements
- **4 = GOOD** – topic is described in some detail
- **5 = EXCELLENT** – exemplary coverage of the topic

Reachable maximum is 25 points, the overall score is converted into %.
Overview of the building stock

Excellent performance for:

☑ Brussels Capital Region: detailed and comprehensive analysis of buildings (age, type, floor area, energy performance characteristics, energy consumption by carriers and end use)

• UK: details provided to stakeholders, researchers and other parties.

But relatively easy to reproduce existing information of this kind.
Identification of cost-effective approaches to renovation

Brussels Capital Region:

- Very good insight especially at the level of individual buildings
- General conclusions about the **applicability** of certain renovation measures, split according to architectural/structural measures, and technical installations.
Policies to stimulate cost-effective renovation

- Czech Republic, Denmark, France and Romania: comprehensive overview of policy options and packaged approach.

Denmark’s approach is the most persuasive with clear commitments to action.
Forward-looking perspective to guide investment decisions

- Across all strategies, this was the weakest section.

- **Czech Republic, Romania and Spain** presented modelled scenarios for renovation (basis for the quantification of the investment requirements, energy savings and other benefits).

- **Spain**: detailed exposition of the investment requirements for each building type.
International energy efficiency: 

- **Estimate of expected energy savings and wider benefits**
- **Assessment of wider benefits was generally poor**. Most MS identified the usual economic, environmental, societal and energy security benefits.
- **Only Romania monetised benefits by recognising their value**.
- **Czech Republic** - implementing the strategy creates 35,000 jobs; GDP increases by 1%
<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>Overview of building stock</th>
<th>Identification of cost-effective approaches to renovation</th>
<th>Policies to stimulate cost-effective renovation</th>
<th>Forward-looking perspective to guide investment decisions</th>
<th>Estimate of expected energy savings and wider benefits</th>
<th>OVERALL level of compliance with Article 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>28%</td>
</tr>
<tr>
<td>Brussels Capital Region</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>68%</td>
</tr>
<tr>
<td>Czech Republic</td>
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<td>3</td>
<td>4</td>
<td>4</td>
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<td>72%</td>
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<tr>
<td>Denmark</td>
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<td>32%</td>
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<tr>
<td>France</td>
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<tr>
<td>Germany</td>
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<tr>
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<tr>
<td>Spain</td>
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<td>3</td>
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<td>3</td>
<td>72%</td>
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<tr>
<td>UK</td>
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<td>3</td>
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<td>AVERAGE</td>
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<td>2.8</td>
<td>3.2</td>
<td>2.2</td>
<td>2.6</td>
<td>58%</td>
</tr>
</tbody>
</table>
Country scores by Article 4 clause

Compliance threshold

Energy savings & wider benefits
Forward-looking perspective
Policies
Cost-effective approaches
Building stock

BPIE

Austria, Brussels, Czech Republic, Denmark, France, Germany, Netherlands, Romania, Spain, UK, AVERAGE, POTENTIAL
The strategies don’t set a clear, strategic path for the renovation of national building stocks.

N.B. No strategies were considered “best practice”.
Anyone making any extra effort?
Stakeholder Consultation

The following Member States included a stakeholder consultation process in order to inform the renovation strategy:

- Denmark
- France
- Netherlands
- Romania
- Spain
Carbon Reduction Targets

The following Member States set their renovation strategies in the context of wider long term ambitions to cut carbon dioxide and greenhouse gas emissions:

- Denmark
- France
- Netherlands
- Germany
- UK
Holistic Policy Approach

The following Member States have taken a holistic approach in setting out their renovation strategies:

- Denmark
- Czech Republic
- Romania
- UK
Indoor Climate

• Not discussed to any significant degree in most strategies
• Denmark: strongest link between renovation and indoor climate issues

• **Recommendation:** strategies should include requirements and guidance on how to ensure that building renovation also delivers a healthier building stock to improve the quality of life and wellbeing of the people, including:
  o Good daylight conditions
  o Adequate ventilation (whether natural or mechanical)
  o Indoor climate
Multiple Benefits

- Job creation
- Economic activity
- Reduction in social security costs
- Reduction in energy consumption
- Regeneration of urban areas
- Property values
- Energy security
- Comfort and indoor climate
- Improved productivity
- Fuel poverty alleviation
- Increased purchasing power
- Reducing CO2

BPIE
What have we learned?

• Despite the multiple co-benefits, energy renovation of buildings is not afforded much political importance or recognition.
• Forward perspective is the weakest area – what steps will governments actually take?
• Available guidelines have largely been ignored.
• À la carte selection of the best bits would produce a good strategy.
Recommendations

Stakeholder involvement: valuable input (improved quality and easier delivery and implementation)

Building stock: detailed breakdown is fundamental for next steps in the strategy (ideally online)

Cost-effective approaches to renovation: summary of cost-optimality analysis (c.f. EC guidelines)

Policies: holistic coverage and geared towards achieving deep renovations

Forward-looking perspective: long-term signals, roadmap (key dates, targets, milestones).
Recommendations

Recognition of building market dynamics, adapted to needs, desires and motivations of building owners.

Quantification of benefits (economic impact, societal benefits and environmental improvements)

Healthy buildings: daylight, ventilation and good IAQ for well-being of occupants

Implementation and enforcement of strategies at MS and EU level to ensure practical achievement

Ongoing review and revision: update and resubmission every 3 years
Conclusion

• The first strategies are a learning process;
• Nonetheless, the required level of ambition, sense of urgency and strategic importance are still lacking;
• MS need to take immediate steps to improve their renovation strategies while keeping in mind that this is an opportunity to improve the quality of life of EU citizens.
Thank you for your attention!

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